GNAS Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GNAS, Polyclonal Antibody
Full Product Name	Anti-GNAS Antibody
Product Gene Name	anti-GNAS antibody
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Specificity	Recognizes endogenous levels of GNAS protein.
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C for one year. Avoid freeze/thaw cycles.
Molecular Weight	28,029 Da
OMIM	603233
3D Structure	ModBase 3D Structure for O95467
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the C-terminal region of human GNAS. The exact sequence is proprietary.
Product Categories/Family for anti-GNAS antibody	Primary Antibodies
Applications Tested/Suitable for anti-GNAS antibody	Western Blot (WB)
Application Notes for anti-GNAS antibody	WB: 1/500-1/1000
Related Product Information for anti-GNAS antibody	MBS8323482 is an antibody targeting GNAS. Reactive in Human. Host: Rabbit. Rabbit polyclonal antibody to GNAS
Other Notes	Small volumes of anti-GNAS antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GNAS. It may not necessarily be applicable to this product.

NCBI GI #	7706589
NCBI GeneID	2778
NCBI Accession #	NP_057676.1
UniProt Primary Accession #	O95467
UniProt Secondary Accession #	O95417; B2RB88; E1P5G2
UniProt Related Accession #	O95467; P63092; P84996; Q5JWF2

GenBank Nucleotide #	NM_016592.2
NCBI Official Full Name	protein NESP55 isoform NESP55
NCBI Official Synonym Full Names	GNAS complex locus
NCBI Official Symbol	GNAS
NCBI Official Synonym Symbols	AHO; GSA; GSP; POH; GPSA; NESP; GNAS1; PHP1A; PHP1B; PHP1C; C20orf45
UniProt Protein Name	Neuroendocrine secretory protein 55
Protein Family	Neuroendocrine secretory protein
UniProt Gene Name	GNAS
UniProt Synonym Gene Names	GNAS1; NESP55
UniProt Entry Name	GNAS3_HUMAN
NCBI Protein Information	protein ALEX; protein GNAS; protein NESP55; secretogranin VI; extra large alphas protein; neuroendocrine secretory protein; guanine nucleotide regulatory protein; alternative gene product encoded by XL-exon; adenylate cyclase-stimulating G alpha protein;
NCBI Summary for GNAS	This locus has a highly complex imprinted expression pattern. It gives rise to maternally, paternally, and biallelically expressed transcripts that are derived from four alternative promoters and 5' exons. Some transcripts contain a differentially methylated region (DMR) at their 5' exons, and this DMR is commonly found in imprinted genes and correlates with transcript expression. An antisense transcript is produced from an overlapping locus on the opposite strand. One of the transcripts produced from this locus, and the antisense transcript, are paternally expressed noncoding RNAs, and may regulate imprinting in this region. In addition, one of the transcripts contains a second overlapping ORF, which encodes a structurally unrelated protein - Alex. Alternative splicing of downstream exons is also observed, which results in different forms of the stimulatory G-protein alpha subunit, a key element of the classical signal transduction pathway linking receptor-ligand interactions with the activation of adenylyl cyclase and a variety of cellular reponses. Multiple transcript variants encoding different isoforms have been found for this gene. Mutations in this gene result in pseudohypoparathyroidism type 1a, pseudohypoparathyroidism type 1b, Albright hereditary osteodystrophy, pseudopseudohypoparathyroidism, McCune-Albright syndrome, progressive osseus heteroplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors. [provided by RefSeq, Aug 2012]

UniProt Comments for GNAS	G-alpha(s) iso7: a guanine nucleotide-binding protein of the G12 class of G-alpha proteins. Agonist binding to Gq-coupled receptors may block Akt activation via the release of active G-alpha(q) subunits that inhibit phosphatidylinositol 3-kinase. Heterotrimeric G proteins are composed of 3 units; alpha, beta and gamma. The alpha chain contains the guanine nucleotide binding site. Protein type: G protein, heterotrimeric alpha G(s); G protein, heterotrimeric; G protein; Membrane protein, peripheral; Oncoprotein; Vesicle Chromosomal Location of Human Ortholog: 20q13.3 Cellular Component: ruffle; transport vesicle; membrane; perinuclear region of cytoplasm; dendrite; cytoplasm; extracellular region; plasma membrane; heterotrimeric G-protein complex; trans-Golgi network membrane; intrinsic to membrane; nucleus; cytosol Molecular Function: GTPase activity; corticotropin-releasing hormone receptor 1 binding; insulin-like growth factor receptor binding; ionotropic glutamate receptor binding; signal transducer activity; protein binding; GTP binding; mu-type opioid receptor binding; metal ion binding; beta-2 adrenergic receptor binding; G-protein beta/gamma-subunit binding; D1 dopamine receptor binding; adenylate cyclase activity Biological Process: developmental growth; positive regulation of osteoclast differentiation; water transport; protein secretion; female pregnancy; G-protein signaling, adenylate cyclase activating pathway; embryonic hindlimb morphogenesis; intracellular transport; positive regulation of cAMP biosynthetic process; tissue homeostasis; DNA methylation; transmembrane transport; endochondral ossification; post-embryonic body morphogenesis; dopamine receptor, adenylate cyclase activating pathway; response to drug; sensory perception of chemical stimulus; negative regulation of multicellular organism growth; multicellular organism growth; sensory perception of smell; adenylate cyclase activation; embryonic cranial skeleton morphogenesis; positive regulation of osteoblast differentiation; cartilage development; energy reserve metabolic process; renal water homeostasis; cAMP biosynthetic process; cognition; blood coagulation; regulation of insulin secretion Disease: Osseous Heteroplasia, Progressive; Pseudopseudohypoparathyroidism; Pituitary Adenoma, Acth-secreting; Acth-independent Macronodular Adrenal Hyperplasia; Mccune-albright Syndrome; Pseudohypoparathyroidism, Type Ia; Pseudohypoparathyroidism, Type Ib; Pituitary Adenoma, Growth Hormone-secreting
Research Articles on GNAS	**1.** GNAS-mutated villous adenomas may not necessarily be direct precursors of associated adenocarcinomas. At the same time, our observations support the role of activating GNAS mutations in increased mucin production in colorectal neoplasms.
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